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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/676,490

10/02/2000

Masaru Hoshino

Q61047

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04/27/2004

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EXAMINER

EDWARDS, PATRICK L

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/676,490

Applicant(s)

HOSHINO, MASARU

Examiner

Patrick L Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,11,12 and 16 is/are rejected.
- 7) ☒ Claim(s) 3-5,8-10 and 13-15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. The response received on February 20, 2004 has been placed in the file and was considered by the examiner. An action on the merits follows.

Response to Arguments

2. Applicant's arguments filed February 20, 2004 have been fully considered. A response to these arguments is provided below.

General Clarifications

In the previous non-final rejection, the claims were rejected using the reference (EP 0 443 851), which was referred to as 'MacDonald' or 'the MacDonald reference'. On the first page of the remarks, the applicant argues that this reference was actually issued to 'Kirk'. Closer examination, however, will reveal that this reference was issued to both 'MacDonald' and 'Kirk'. Since 'MacDonald' is the first named inventor, this reference is properly referred to as 'MacDonald et al' and will be referred to herein as simply 'MacDonald' or 'the MacDonald reference'.

35 USC 102 Rejections

Applicant's argument: The applicant argues that the MacDonald reference fails to teach the claimed parameter registration device (remarks pg. 9 final paragraph – pg. 10 end of 2nd paragraph).

Examiners response: MacDonald discloses LUT 4 for modification of an LCH image and LUT 5 for subsequent conversion of the modified LCH image into RGB format. An LUT (look-up table) is a device which performs an operation by mapping the input pixels to their output value using the memory address which corresponds to the input pixel value. The contents of the LUT's 4 and 5 are analogous to the parameters recited in the claim in that these are the values that are referred to in the performing of the

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filtering operations. It follows that the combination of LUT's 4 and 5 are indeed analogous to a third storage storage device as recited in the claim in that they contain the contents which are referred to in the filtering process.

Applicant's argument: The applicant argues that the MacDonald reference fails to teach the claimed filtering device (remarks pg. 10 3rd paragraph – pg. 11 end of 3rd paragraph).

Examiner's response: The combination of LUT's 4 and 5 and processor 7 disclosed in MacDonald is analogous to the filtering device recited in the claim. The modification performed by LUT 4 and the subsequent conversion into rgb format performed by LUT 5 qualify as a number of different filtering processes as recited in the claim. It follows that these processes are performed in a predetermined order and that the filtering device refers to the parameters stored in the third area (the contents of LUT's 4 and 5) to perform them.

35 USC 103 Rejections

Applicant's argument: The applicant argues that the limitation in claims 3, 8 and 13 of a named order of filtering steps is not an obvious matter of design choice because the specification indicates that the order in which the process are performed minimizes the reduction in color and spatial information (remarks pg. 14 1st paragraph)

Examiners response: The applicant's argument has been fully considered and is persuasive. Consequently, the 35 USC 103 rejection of claims 3-5, 8-10 and 13-15 have been withdrawn.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by MacDonald et al. (EP 0 443 851).

With regard to claim 1, which is representative of claim 6, MacDonald discloses a storage device which stores input image data in a first area (page 4 line 4 in conjunction with Figure 1). The store (element 1 of Figure 1) disclosed in MacDonald is analogous to a first area of a storage device as stated in the claim.

MacDonald also discloses a refuting device which stores, in a second area of the storage device, sample image data produced from the input image data that has been stored in the first area (page 4 lines 4-9 in conjunction with Figure 1). The frame store (element 3, Figure 1) of MacDonald stores a second color space (analogous to sample image data) which is indeed produced from the original image. The frame store disclosed in MacDonald is analogous to a second area of a storage device as recited in the claim. As a result, the combination of elements 2 and 3 from Figure 1, which clearly store, in a second area, sample image data produced from input image data in a first area, is analogous to a refuting device as recited in the claim.

MacDonald also discloses a pseudo display device which outputs, to a display, pseudo image data obtained by performing a number of different processes for filtering the sample image data stored in the second (page 3 lines 10-11). The terms “modifying” (page 3 line 21) and “retouching” (page 3 line 14) as disclosed in MacDonald are analogous to filtering as recited in the claim. In addition, the monitor from MacDonald is analogous to a display as recited in the claim.

MacDonald also discloses a parameter registration device which stores, in a third area of the storage device, parameters that are to be referred to for each kind of process that is performed for filtering the sample image data in the second area (page 4 lines 13-20 in conjunction with Figure 1). The combination of LUT's 4 and 5 and the processor 7 disclosed in MacDonald are analogous to the parameter registration device recited in the claim. The combination of LUT's 4 and 5 is analogous to a third area of the storage device as recited in the claim in that these LUT's store the values corresponding to a filtered version of the LCH image (the sample image stored in a second area of the storage device). These values which make up the LUT's qualify as the ‘parameters’ recited in the claim.

MacDonald also discloses a filtering device which, while referring to the parameters in the third area, performs, in a predetermined order, a number of different processes for filtering the input image data in the first area to obtain image data for output (page 4 lines 13-20 in conjunction with Figure 1). The combination of LUT's 4 and 5 and the processor 7 disclosed in MacDonald are analogous to the filtering device recited in the claim in that MacDonald discloses a number of different processes (performed in a predetermined order) for filtering the image data. Again, the filtering device refers to the parameters stored in the third area (the contents of LUT's 4 and 5) to perform the different processes (the filtering operation and subsequent conversion to rgb data).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDonald in view of Fisher (US Patent 4,833,625). The arguments as to the relevance of MacDonald in paragraph 2 above are incorporated herein.

With regard to claim 2, which is representative of claims 7 and 12, MacDonald fails to disclose that said filtering device sequentially performs, in accordance with an order established to minimize color information and spatial information reductions, a number of different processes for filtering the input image data. Fisher discloses a pipelined architecture that sequentially performs a sequence of functions (column 16 lines 4-5). The sequence of functions as disclosed in Fisher are analogous to a number of different processes for filtering as stated in the application. Fisher also discloses that the sequence of functions is performed in an order to help minimize image information loss (column 16 lines 33-41). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the imaging apparatus and method of MacDonald to include the sequential filtering of an image as taught by Fisher. Such a modification would have allowed for a filtering device that avoided information reductions in the output image and consequently avoided visible contouring in the output image (Fisher column 16 lines 33-41).

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (JP 11-185034) in view of Fisher et al. (USPN 4,833,625).

Sato discloses storing input image data in a first area of a storage device (Sato paragraph [0028]). The RAM disclosed in Sato is analogous to the claimed storage device.

Sato further discloses producing sample image data from the input image data stored in the first area and storing the sample image data in a second area of the storage device (Sato paragraph [0028]). The digital image which is copied and stored into image processing work memory is analogous to the sample image data recited in the claim. Since two images cannot simultaneously occupy the same area of memory, we can conclude that the sample image data is inherently stored in a second area of the storage device.

Sato further discloses setting parameters for filtering entered by the operator and storing the parameters in a third area of the storage device (Sato abstract). The correction setting data stored in the image processing catalog

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file of the RAM disclosed in Sato is analogous to the filtering parameters recited in the claim. It follows that the catalog file is analogous to a third area of the storage device.

Sato further discloses filtering the image data stored in the first area and the sample data stored in the second area, while referring to the parameters stored in the third area (Sato paragraph [0029]).

Sato further discloses displaying pseudo image data obtained from filtering the sample data stored in the second area (Sato paragraph [0028]).

Sato further discloses printing the output image data obtained from filtering the input data stored in the first area (Sato paragraph [0004]). Sato discloses producing a pamphlet or a catalog. As a result, Sato inherently discloses printing the output data.

Sato further discloses that the filtering comprises a number of different processes (Sato abstract), but fails to explicitly recite that these processes are performed in a predetermined order. Fisher, however, teaches performing filtering operations in a predetermined order (Fisher col. 16 lines 27-48). It would have been obvious to one reasonably skilled in the art at the time of the invention to modify Sato's image processing method by including a predetermined order for the filtering operations as taught by Fisher. Such a modification would have allowed for the filtering process to achieve optimal results (Fisher col. 16 lines 27-29).

Allowable Subject Matter

8. Claims 3-5, 8-10 and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Applicant's amendment (the addition of claim 16) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick L Edwards whose telephone number is (703) 305-6301. The examiner can normally be reached on 8:30am - 5:00pm M-F.

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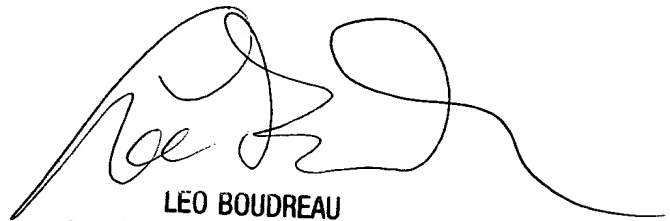
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick Lynn Edwards

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